

MSC Guidelines for Review of Sanitary/ Sewage Systems, Overboard Discharges, & Drains -- Small Passenger Vessel

Procedure Number: E1-24T

Revision Date: 03/19/03

References

- a. Title 33 CFR 159 Marine Sanitation Devices (All Vessels)
 - b. Title 46 CFR 179.350 Openings in the side of a vessel below the bulkhead or weather deck (Subchapter T Vessels)
 - c. Title 46 CFR 182.720, and 182.730 Nonmetallic and nonferrous metallic piping materials (Subchapter T Vessels)
 - d. COMDTINST M16000.7, Marine Safety Manual, Vol. II Material Inspection, Chapter 18, Part K, Marine Sanitation Devices.
 - e. COMDTINST M16714.3E, Equipment Lists, 159.015 Marine Sanitation Devices
-

Disclaimer

These guidelines were developed by the Marine Safety Center as an aid in the preparation and review of vessel plans and submissions. They were developed to supplement existing guidance. They are not intended to substitute or replace laws, regulations, or other official Coast Guard policy documents. The responsibility to demonstrate compliance with all applicable laws and regulations still rests with the plan submitter. The Coast Guard and the U. S. Department of Homeland Security expressly disclaim liability resulting from the use of this document.

Contact Information

If you have any questions or comments concerning this Guidance, please contact the Marine Safety Center by e-mail or phone. Please refer to Procedure Number: E1-24T.

E-mail: customerservicemsc@uscg.mil

Phone: (202) 366-6440

General Review Guidance

Applicable to All Vessels

- ❑ Marine Sanitation Devices - Vessels with installed toilets must install an operable, certified MSD, as follows: (See Title 33 CFR § 159.5)
 - ❑ Vessels 65 feet in length and under must have a Type I, II, or III device (Type I MSD's are still permitted on new installations because
-

MSC Guidelines for Review of Sanitary/ Sewage Systems, Overboard Discharges, & Drains -- Small Passenger Vessel

Procedure Number: E1-24T

Revision Date: 03/19/03

of a USCG waiver issued by Federal Register notice of Monday, 10 July 1978 and clarified in 33 CFR 159.7 in 1997.); and

- ❑ Vessels over 65 feet in length must have a Type II or III device. Waivers are permitted for Type I devices installed prior to 31 January 1980.
 - ❑ A Type III tank is used solely to store sewage and flushwater. The tank shall operate at ambient air temperature and pressure. Vacuum collection systems cannot be certified under 159.12(a) and must be submitted for engineering review to G-MSE-3.
 - ❑ The MSD may not receive gray waters or galley wastes. Adding these wastes can greatly increase the hazards of putrefied material accumulating in the tank. Waivers may be granted on a case by case basis for those vessels operating exclusively in “zero discharge areas” in which discharge of treated and untreated sewage, as well as gray water is prohibited. Reference G-MSE-3 Policy File Memorandum of 7 July 1999.
 - ❑ The capacity of a MSD must be adequate for the vessel. Type I and II device capacities are determined by manufacturers and should be evaluated with respect to average passenger waste per day (1.5 liters) and the amount of water used by different toilet flushing systems (conventional, vacuum, etc). Type III device capacities, in addition to the above, must account for the vessel’s route for proper discharge. Installing an MSD with inadequate capacity may lead to a discharge in violation of EPA regulations.
 - ❑ Vents from the MSD do not cross-connect with other vents.
 - ❑ Baffles in sewage retention tanks, if any, must have openings to allow fluid and vapor to flow freely across the top and bottom of the tank. (Reference 33 CFR 159.81)
 - ❑ Each sewage retention device must have a means of indicating when the device is more than $\frac{3}{4}$ full by volume (Reference 33 CFR 159.83)
 - ❑ Sewage removal fittings shall be either 1 $\frac{1}{2}$ ” or 4” nominal pipe size (Reference 33 CFR 159.87)
-

MSC Guidelines for Review of Sanitary/ Sewage Systems, Overboard Discharges, & Drains -- Small Passenger Vessel

Procedure Number: E1-24T

Revision Date: 03/19/03

Vessels Subject to Title 46 CFR Subchapter T

- ❑ Watertight integrity (Reference 46 CFR 179.350, T-boats)
 - ❑ If the discharge pipe penetrates the hull below a line drawn parallel to and at least 150 mm (6 inches) above the deepest load waterline, it must have a means to prevent water from entering the vessel if the pipe fractures or other wise fails. A positive action valve or cock located as close as possible to the hull is acceptable.
 - ❑ If the discharge pipe is inaccessible, a shutoff valve shall be:
 - ❑ Operable from the weather deck or any other accessible location above the bulkhead deck; and
 - ❑ Labeled at the operating point for identity and direction of closing
 - ❑ Any connecting device or valve in a hull penetration must not be cast iron.
 - ❑ Each plug cock in an inlet or discharge pipe must have a means, other than a cotter pin, to prevent its loosening or removal from the body.
- ❑ Non-metallic Piping Materials: (Reference 46 CFR 182.720, T-Boats).
 - ❑ Each hull penetration must be accomplished using an acceptable metallic through deck or through bulkhead fitting that is welded or attached to the bulkhead or deck using an accepted method.
 - ❑ One or more metallic shutoff valves must be installed in accordance with the following guidance:
 - ❑ One metallic shutoff valve is permitted if operable from above the bulkhead deck.
 - ❑ Two metallic shutoff valves are permitted on either side of the bulkhead provided immediate access to both is possible. Operation from above the bulkhead deck is not required.